

AMENDMENT TO THE CLAIMS

Applicants selectively amend the claims as follows:

Listing of Claims:

1 1. (Currently Amended) An apparatus comprising:
2 a data path output unit to output a packet header for a transaction layer packet, the packet
3 header including:
4 a format field to partially specify the packet header format, to specify whether the
5 transaction layer packet includes a data payload and to specify a size of the packet
6 header; and
7 a type field to specify a transaction type, the transaction type to include at least
8 one selected from the following group of: a memory request, an input/output request, a
9 configuration request[,] and a message request ~~and a completion~~, wherein the format field
10 and the type field together specify the packet header format.

1 2-4. (Canceled).

1 5. (Previously Amended) The apparatus of claim 1, wherein the format field and the type field
2 are located in the first byte of the packet header to be output by the data path output unit.
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1 6. (Currently Amended) An apparatus comprising:

2 a data path input unit to receive a packet header for a transaction layer packet, the packet
3 header including:

4 a format field to partially specify the packet header format, to specify whether the
5 transaction layer packet includes a data payload and to specify a size of the packet
6 header; and

7 a type field to specify a transaction type, the transaction type to include at least
8 one selected from the following group of: a memory request, an input/output request, a
9 configuration request[,] and a message request ~~and a completion~~, wherein the format field
10 and the type field together specify the packet header format. .

1 7-9. (Canceled).

1 10. (Previously Amended) The apparatus of claim 6, wherein the format field and the type field
2 are located in the first byte of the packet header to be output by the data path output unit.

1 11. (Currently Amended) A system comprising:

2 a transmitting device to transmit a packet header for a transaction layer packet, the packet
3 header including:

4 a format field to partially specify the packet header format, to specify whether the
5 transaction layer packet includes a data payload and to specify a size of the packet

6 ~~header,~~ header;

7 a type field to specify a transaction type, the transaction type to include at least
8 one selected from the following group of: a memory request, an input/output request, a
9 configuration request[,]
10 and a message request ~~and a completion~~, wherein the format field
and the type field together specify the packet header format; and

11 a receiving device coupled to the transmitting device, the receiving device to receive the
12 packet header.

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1 12-14. (Canceled).

1 15. (Previously Amended). The system of claim 11, wherein the transmitting device and the
2 receiving device are coupled via a serial interface.

1 16. (Original). The system of claim 15, wherein the format field and the type field are located in
2 the first byte of the packet header to be output by the transmitting device.

1 17-18. (Canceled).

1 19. (Currently Amended) An apparatus comprising:

2 a data path output unit to output a packet header for a transaction layer packet, wherein
3 the packet header includes:

4 a format field to partially specify the packet header format, to specify whether the
5 transaction layer packet includes a data payload and to specify a size of the packet
6 header; and

7 a type field to specify a transaction type, the transaction type to include at least
8 one selected from the following group of: of a memory request, an input/output request, a
9 configuration request and a message request ~~or a completion~~, wherein the format field
10 and the type field are located in the first byte of the packet header and together specify
11 the packet header format, the format field also indicates whether the transaction layer
12 packet includes payload data that is four-byte, naturally aligned and limited in size by a
13 maximum data payload size.

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1 20-22. (Canceled).

1 23. (Currently Amended) The apparatus of claim 19, wherein the format field ~~further specifies a~~
2 to specify the size of the packet header comprises the size of the packet header based on a 32-
3 bit addressing format.

1 24. (Canceled).

1 25. (Currently Amended) The apparatus of claim 19 ~~23~~, wherein the format field ~~further~~
2 ~~specifies a~~ to specify the size of the packet header comprises the size of the packet header
3 based on a 64-bit addressing format.

1 26. (Currently Amended) The apparatus of claim 1, wherein the format field ~~further specifies a~~
2 to specify the size of the packet header comprises the size of the packet header based on a 32-
3 bit addressing format.

1 27. (Canceled).

1 28. (Currently Amended) The apparatus of claim 1 ~~27~~, wherein the format field ~~further specifies~~
2 ~~a~~ to specify the size of the packet header comprises the size of the packet header based on a
3 64-bit addressing format.

1 29. (Previously Presented) The apparatus of claim 1, wherein the packet header comprises the
2 packet header including a length field, the length field to specify the length of payload data.

1 30. (Previously Presented) The apparatus of claim 1, the packet header further including a length
2 field, wherein if the type field specifies the transaction type as a message and the message
3 specifies a data length, the length field specifies the data length.

1 31. (Currently Amended) The apparatus of claim 1, wherein the transaction type to include the
2 memory request ~~specified in the type field is a memory request and the memory request~~
3 comprises the memory request to include a memory write request.

1 32. (Previously Presented) The apparatus of claim 31, the packet header further including a byte
2 enable field to specify which bytes at a beginning portion of a data payload for the
3 transaction layer packet are enabled, the beginning portion to include a first 4 bytes of data in
4 the payload data, wherein the byte enable field includes 4 bits, each bit to correspond to a
5 given byte in the first 4 bytes of data, a value of 1 in each bit to specify that a corresponding
6 given byte is enabled, enabled to include an indication to a logical device addressed by the
7 packet header to write the corresponding given byte to a memory.

1 33. (Previously Presented) The apparatus of claim 32, the packet header further including
2 another byte enable field to specify which bytes at an ending portion of a data payload for the
3 transaction layer packet are enabled, the ending portion to include a last 4 bytes of data in the
4 payload data, wherein the byte enable field includes 4 bits, each bit to correspond to a given
5 byte in the last 4 bytes of data, a value of 1 in each bit to specify that a corresponding given
6 byte is enabled.

1 34. (Currently Amended) The apparatus of claim 6, wherein the format field ~~further specifies a~~
2 to specify the size of the packet header comprises the size of the packet header based on a 32-
3 bit addressing format.

1 35. (Canceled).

1 36. (Currently Amended) The apparatus of claim 6 ~~35~~, wherein the format field ~~further specifies~~
2 a to specify the size of the packet header comprises the size of the packet header based on a
3 64-bit addressing format.

1 37. (Previously Presented) The apparatus of claim 6, wherein the packet header comprises the
2 packet header including a length field, the length field to specify the length of payload data.

1 38. (Previously Presented) The apparatus of claim 37, wherein the data path input unit is to
2 compare the length specified in the length field to an actual length of the payload data and to
3 treat the transaction layer packet as a malformed transaction layer packet based on the actual
4 length not matching the length specified in the length field.